CLAIMS

1. A twisted pair cable comprising a plurality of pairs, each of said pairs comprising:

two conductors, each of said conductors being covered with an inner layer insulator and an outer layer insulator, said conductors being eccentric with respect to the overall insulation of said inner and outer layer insulator.

2. A twisted pair cable comprising a plurality of pairs, each of said pairs comprising:

two conductors, each of said conductors being covered with an inner layer insulator and an outer layer insulator, said conductors being separated by a distance S1 which is smaller than the separation S2 of conductors in adjacent pairs.

- A twisted pair cable comprising a plurality of pairs, each of said pairs 3. comprising two conductors, each of said conductors being covered with an inner layer insulator and an outer layer insulator defining an outer surface, said conductors being asymmetric such that said conductors are closer to each other than to conductors in adjacent pairs in contact at the outer surface opposite said\conductors.
- A twisted pair cable according to claim 1, wherein said conductors are 4. closer to each other than to an outer surface opposite said conductors.

A twisted pair cable according to claim 4, wherein said inner insulator is an 5. extrudable polymer, and wherein said outer insulator is an extrudable elastomer.

A twisted pair cable according to claim β , wherein said extrudable polymer has a modulus of elasticity greater than 64 Kpsi at room temperature, a dielectric constant lower than 2.5 and a loss factor lower than 0.0003

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between 1 MHz and 1GHz; and wherein said elastomer has a modulus of elasticity lower than 35 Kpsi at room temperature.

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A twisted pair cable according to claim 4, wherein said inner insulator is an extrudable elastomer and wherein said outer insulator is an extrudable polymer.

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A twisted pair cable according to claim, wherein said extrudable polymer has a modulus of elasticity greater than 64 Kpsi at room temperature, a dielectric constant lower than 2.5 and a loss factor lower than 0.0003 between 1 MHz and 1GHz; and wherein said elastomer has a modulus of elasticity lower than 35 Kpsi at room temperature.

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A twisted pair cable according to claim 4, wherein each of said conductors further comprise a middle layer insulator, said inner and outer layer insulators being an extrudable elastomer and wherein said middle layer insulator is an extrudable polymer.

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A twisted pair cable according to claim 5, wherein said extrudable elastomer further includes a carrier for color and flame retardant additives.

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A twisted pair cable according to claim 5, wherein said elastomer is foamed.

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12. A twisted pair cable according to claim 1, wherein said elastomer is foamed.

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A twisted pair cable according to claim 5, wherein said extrudable polymer is foamed, and wherein said elastomer has a modulus of elasticity lower than 35 Kpsi at room temperature.

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A twisted pair cable according to claim, wherein said elastomer and said extrudable polymer are foamed.





15. A twisted pair cable according to claim β , wherein said elastomer thickness is greater than 15 % of the overall insulation thickness.

16. A method for making a twisted pair cable comprising:

- (a) providing a first and a second conductor, each of said first and said second conductor being insulated with an inner insulator and an outer insulator, one of said inner and outer insulator having a modulus of elasticity lower than 35 Kpsi at room temperature, the other of said inner and outer insulator having a modulus of elasticity greater than 64 Kpsi;
- (b) stretching said first and second conductor at a sufficient angle and by an amount sufficient to effect a permanent deformation of the insulator having the lower modulus of elasticity, but not enough to effect a permanent deformation of the insulator having the higher modulus of elasticity; and
- (c) twisting said first and second conductors together; and
- (d) manufacturing a cable with a plurality of said pairs.

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